Study: Fibroids Drive Women to Surgery

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BETHESDA, Md. — Large fibroids appear to grow faster than smaller fibroids, but symptoms—rather than growth rate—spur women to surgery.

A preliminary analysis of data from 120 women in the Fibroid Growth Study suggests that large fibroids (greater than 50 cm³) and muscle fibers (7.50 cm³), showed a significantly greater increase in size over one year, compared with small fibroids (less than 7 cm³).

"Most women have fibroids, but there is a subset of women that are symptomatic," Barbara J. Davis, Ph.D., said at an international conference on uterine leiomyoma research sponsored by the National Institutes of Health.

Data on the factors that cause fibroids to grow and become clinically symptomatic are limited. "Our hypothesis was that fibroids are heterogeneous and that growing tumors will have different cellular and molecular characteristics than non-growing tumors," said Dr. Davis, former director of the Laboratory of Women’s Health at the National Institute of Environmental Health Sciences and now a chief of the Laboratory of Women’s Health at the National Institute of Environmental Health Sciences.

The researchers were surprised that both large and medium fibroids grew faster than small ones. "We thought that small tumors would be the fast-growing ones, and we thought we might find some that shrank, but we didn’t," Dr. Davis said.

In fact, all the fibroids studied grew to some extent.

Intramural fibroid growth was slower than that of subserosal fibroids. However, growth rates between intramural and subserosal fibroids and between submucosal and subserosal tumors were not significantly different.

As for the impact of growth rates on patient outcome, the researchers found no significant differences in growth rates between patients who had surgery and those who did not.

"That was a surprise to us," Dr. Davis said. "We wondered why the women were going to surgery."

The answer is their symptoms. Symptom severity scores related to bleeding in surgery patients were almost double those of nonsurgery patients. Similarly, there was a significant difference in reported pain before and after surgery among surgery patients, compared with pain scores of nonsurgery patients.

Although the clinical symptomology differed between women who chose surgery and those who did not, the fibroid growth rates appeared similar in both groups. Dr. Davis noted that the investigators have yet to review the impact of number of tumors on outcome. The total number of fibroids per woman ranged from 1 to 11.

The most common reasons for choosing surgery were to reduce heavy bleeding (40%) and to attempt pregnancy (20%). The investigators found a greater proportion of fibrous tumors, compared with smooth tissues, in the large tumors than in smaller tumors. The large tumors were much more likely to show evidence of increased vascularity, suggesting that connective tissue contributes to tumor growth rather than regression. The vascularity varied as well—the fibroids had fewer smooth vessels compared with normal tissues, but the fibroids had a larger total area of vascularity, but the smaller fibroids had a larger cross-section of blood vessels.

Ultimately, these results and future analyses might help physicians develop a model that they can use to predict fibroid growth over time. Dr. Davis noted.